

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION**

IN RE: NATIONAL PRESCRIPTION)	MDL 2804
OPIATE LITIGATION)	
)	Case No. 1:17-md-2804
THIS DOCUMENT RELATES TO:)	
)	Judge Dan Aaron Polster
<i>Track One Cases</i>)	
)	<u>ORDER DENYING MOTION TO</u>
)	<u>EXCLUDE ROSENTHAL</u>
)	

Before the Court is Defendants' Motion to Exclude Meredith Rosenthal's Opinions and Proposed Testimony (Doc #: 1913). For the reasons stated below, the motion is **DENIED**.

A. Legal Standards.

The Defendants have filed over a dozen motions seeking to exclude testimony from Plaintiffs' designated experts. The Court sets out here, in its first *Daubert* opinion, the legal standards it will apply when considering all of these motions. The Court will not repeat these legal standards in subsequent opinions, and instead incorporates them by reference in advance.

The Defendants' motions ask the Court to apply *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 596 (1993) and Rule 702 of the Federal Rules of Evidence. Rule 702 states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and

- (d) the expert has reliably applied the principles and methods to the facts of the case.

FED R. EVID. 702. Rule 702 was amended in 2000 to reflect the decisions in *Daubert* and *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). These decisions, and their progeny, emphasize the district court’s role as the gatekeeper tasked with insulating juries from inadmissible expert testimony. See *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 528 (6th Cir. 2008); *Surles ex rel. Johnson v. Greyhound Lines, Inc.*, 474 F.3d 288, 295 (6th Cir. 2007). A court’s gatekeeping function applies not only to scientific expert testimony, but also to expert testimony involving technical or specialized knowledge. See *Kumho Tire*, 526 U.S. at 147; FED. R. EVID. 702(a).

In its role as gatekeeper, a court must “strike a balance between a liberal admissibility standard for relevant evidence on the one hand and the need to exclude misleading ‘junk science’ on the other.” *Ask Chems., LP v. Computer Packages, Inc.*, 593 F. App’x 506, 509 (6th Cir. 2014) (quoting *Best v. Lowe’s Home Ctrs., Inc.*, 563 F.3d 171, 176–77 (6th Cir. 2009); see also *Nelson v. Tennessee Gas Pipeline Co.*, 243 F.3d 244, 252 (6th Cir. 2001) (“close judicial analysis of expert testimony is necessary because expert witnesses are not necessarily always unbiased scientists.”) (citations and internal quotation marks omitted). A court is not required to admit expert testimony that is “connected to existing data only by the *ipse dixit* of the expert” and may conclude there is just too great an analytical gap between the data and the opinion proffered. See *Nelson*, 243 F.3d at 254; see also *Gen. Elec. Co. v. Joiner*, 522 U.S. 136 (1997).

Due to the complexities inherent in their role as gatekeeper, district courts possess broad discretion to make admissibility determinations. *Pride v. BIC Corp.*, 218 F.3d 566, 578 (6th Cir. 2000). Indeed, “the law grants a district court the same broad latitude when it decides *how* to determine reliability as it enjoys in respect to its ultimate reliability determination.” *Kumho Tire*, 526 U.S. at 142 (emphasis in original) (citing *Joiner*, 522 U.S. at 143). “As a baseline premise, in

rulings on the admissibility of expert opinion evidence, the trial court has broad discretion and its rulings must be sustained unless manifestly erroneous.” *Brainard v. American Skandia Life Assur. Corp.*, 432 F.3d 655, 663 (6th Cir. 2005) (internal quotation marks and citations omitted).

Although a court is given a wide berth to determine the admissibility of expert testimony, “*Daubert* did not work a seachange [sic] over federal evidence law, and the trial court’s role as a gatekeeper is not intended to serve as a replacement for the adversary system.” *Burgett v. Troy–Bilt LLC*, 579 F. App’x 372, 376 (6th Cir. 2014) (quoting FED. R. EVID. 702, advisory committee note, 2000 amend.) (internal quotation marks omitted). Accordingly, an expert’s testimony should be excluded when it amounts to “mere guess or speculation;” in contrast, challenges to the accuracy of an expert’s conclusions or factual basis generally “bear on the weight of the evidence rather than on its admissibility.” *United States v. L.E. Cooke Co.*, 991 F.2d 336, 342 (6th Cir.1993). And courts will “generally permit” erroneous or weak expert testimony as long as it has “some support” in the record. *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 530 (citations omitted). Once such evidence is admitted, “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *Burgett*, 579 F. App’x at 377 (quoting *Daubert*, 509 U.S. at 596). Rejection of expert testimony is the exception, rather than the rule. *See Burgett*, 579 F. App’x at 376 (quoting *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 530).

The Sixth Circuit has identified three factors a court should consider when deciding whether expert testimony is admissible. First, the proposed expert must have the requisite qualifications. Second, the proposed testimony must be relevant. Third, the proposed testimony must be reliable. *See In re Scrap Metal Antitrust Litig.*, 527 F.3d at 529. Each of these factors is discussed below.

Is the Expert Qualified?

The first criterion for admission asks whether the witness is qualified to offer expert opinion testimony. An expert may be qualified by virtue of his or her “knowledge, skill, experience, training or education,” or a combination of these factors. FED. R. EVID. 702. Trial “courts do not consider ‘the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.’” *Burgett*, 579 Fed. App’x. at 376 (citations omitted). In this regard, a trial court must determine whether the expert’s training and qualifications relate to the specific subject matter of his or her proposed testimony. “Thus, for example, a witness qualified as an expert in cardiovascular pharmacology may be allowed to opine about how a drug affects the heart, but not on how obesity affects the heart.” *In re Welding Fume Products Liab. Litig.*, 2005 WL 1868046, at *5 (N.D. Ohio Aug. 8, 2005) (citations omitted). The proponent of the expert has the burden to demonstrate that the expert’s testimony meets all of the *Daubert* criteria, including that of qualification. *Nelson*, 243 F.3d at 251.

In cases where the proffered expert relies “solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts.” FED. R. EVID. 702, advisory committee note, 2000 amend. Further, regardless of the basis for the expert’s qualifications, that a “proffered expert may be unfamiliar with pertinent statutory definitions or standards is not grounds for disqualification. Such lack of familiarity affects the witness’s credibility, not his qualifications to testify.” *Davis v. Combustion Engineering, Inc.*, 742 F.2d 916, 919 (6th Cir. 1984); *see also, First Tennessee Bank Nat. Ass’n v. Barreto*, 268 F.3d 319, 333 (6th Cir. 2001) (unfamiliarity with only some aspects of banking relationships merely affects weight

and credibility, not admissibility); *Surles*, 474 F.3d at 296 (expert with experience with the threat management unit of the Los Angeles Police Department was qualified to testify despite his lack of specific experience in commercial bus line threat assessment).

Is the Proffered Testimony Relevant?

The second factor for admission of expert testimony requires the testimony to be relevant. The relevancy requirement has been described as the “fit” requirement—that is, the expert must “fit” the facts of the case into the principles and methodologies used to render his opinion. *Daubert*, 509 U.S. at 591; *United States v. Smithers*, 212 F.3d 306, 313, 325 (6th Cir. 2000); *see also Joiner*, 522 U.S. at 152. *Daubert*’s “fit” requirement seeks to ensure that a jury is presented with expert evidence only when that evidence is demonstrably germane to the facts of the case. At its core, the relevance standard, or fit requirement, is “a liberal one” premised on Federal Rule of Evidence 401. *Daubert*, 509 U.S. at 587 (“Relevant evidence is defined as that which has any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.”) (internal quotation marks omitted).

Because “[f]it is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes,” a court must perform a case-by-case assessment to determine whether a particular expert’s testimony will truly help the jury understand the evidence. *Daubert*, 509 U.S. at 591. Testimony based on theories that do not fit the facts is not helpful to the jury and is not relevant. Even testimony applying appropriate methodology that is not connected to the facts of the case renders the testimony irrelevant. Accordingly, Rule 702’s “helpfulness” standard requires a valid connection to the pertinent inquiry as a precondition of admissibility. *See Daubert*, 509 U.S. at 591-92.

Other types of evidence may also be unhelpful to the jury and, therefore, not relevant. For example, if the jury does not require enlightenment from someone having specialized knowledge of a subject, the proffered expert will not assist them in their inquiries and his or her opinions are irrelevant. *See* FED. R. EVID. 702, advisory committee note, 2000 amend. (“There is no more certain test for determining when experts may be used than the common sense inquiry of whether the untrained layman would be qualified to determine intelligently and to the best possible degree the particular issue without enlightenment from those having a specialized understanding of the subject involved in that dispute.”); *see also See United States v. Smith*, 736 F.2d 1103, 1105 (6th Cir. 1984), *cert. denied*, 469 U.S. 868 (1984). In addition, expert testimony that offers nothing more than a legal conclusion and attempts to tell the jury what result it should reach is generally not helpful and should be excluded. *See Shahid v. City of Detroit*, 889 F.2d 1543, 1547-48 (6th Cir. 1989) (expert testimony found inadmissible where the proffered legal conclusions would confuse the jury and the opinions pertained to ultimate fact issues that should be determined based on the credibility of testimony); *see also Davis v. Cowan Systems, L.L.C.*, No. 1:03 CV 2358, 2005 WL 2338829, at *1-2 (N.D. Ohio Sept. 23, 2005).

Is the Proffered Testimony Reliable?

Testimony can be reliable if it is “based on sufficient facts or data” or “the product of reliable principles and methods” which the expert, in turn, has applied to the facts of the case. FED. R. EVID. 702. The requirement that expert testimony be evaluated to determine its “reliability” stems directly from *Daubert*, where the Supreme Court required trial courts to conduct a “preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” *Daubert*, 509 U.S. at 592–93 (citations omitted). A touchstone of this analysis is

whether the proffered expert “basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire*, 526 U.S. at 152.

To assist in the analysis of reliability, the *Daubert* Court set forth the following non-exhaustive list of factors for trial courts to use in assessing the reliability of scientific expert testimony:

1. whether the expert’s technique or theory can be or has been tested;
2. whether the technique or theory has been subject to peer review and publication;
3. the known or potential rate of error of the technique or theory when applied;
4. the existence and maintenance of standards and controls; and
5. whether the technique or theory has been generally accepted in the scientific community.

Daubert, 509 U.S. at 593–94; *see also United States v. Langan*, 263 F.3d 613, 621 (6th Cir. 2001) (an expert’s opinion may also be deemed reliable if supported by “testing, peer review, publication, error rates, the existence and maintenance of standards controlling the technique’s operation, and general acceptance of the scientific [or technical] community”).

The *Daubert* Court emphasized the non-exclusivity of its list, noting that “[m]any factors will bear on [this] inquiry,” that there is no “definitive checklist or test” that must be applied, and that the test is a “flexible one.” *Daubert*, 509 U.S. at 594–95; *see also Kumho Tire*, 526 U.S. at 150. Although a court should focus on the principles and methodology of the expert and not on the conclusions they generate, “conclusions and methodology are not entirely distinct from one another.” *Joiner*, 522 U.S. at 146. Additionally, the *Daubert* factors “should be applied only ‘where they are reasonable measures of the reliability of expert testimony.’” *In re Scrap Metal*

Antitrust Litig., 527 F.3d at 529 (quoting *Gross v. Commissioner of Internal Revenue*, 272 F.3d 333, 339 (6th Cir. 2001)). For example, where non-scientific expert testimony is involved, “the [Daubert] factors may be pertinent, while in other cases the relevant reliability concerns may focus upon personal knowledge or experience.” *Barreto*, 268 F.3d at 335 (citing *Kumho Tire*, 526 U.S. at 150) (internal quotation marks omitted). Nevertheless, whether the proffered testimony is technical or otherwise specialized, an expert’s testimony should not be treated more permissively simply because it is outside the realm of science. *See* FED. R. EVID. 702, advisory committee note, 2000 amend.

Although a district court has broad latitude in determining whether proffered expert testimony is reliable, the Sixth Circuit has developed some guidance: “Red flags that caution against certifying an expert include reliance on anecdotal evidence, improper extrapolation, failure to consider other possible causes, lack of testing, and subjectivity.” *Newell Rubbermaid, Inc. v. Raymond Corp.*, 676 F.3d 521, 527 (6th Cir. 2012) (citing *Best*, 563 at 177). In addition, the Sixth Circuit often analyzes the “prepared-solely-for-litigation factor.” *Johnson v. Manitowoc Boom Trucks, Inc.*, 484 F.3d 426, (6th Cir. 2007); *Newell Rubbermaid*, 676 F.3d at 527. Under this factor, the Sixth Circuit “has recognized for some time that expert testimony prepared solely for purposes of litigation, as opposed to testimony flowing naturally from an expert’s line of scientific research or technical work, should be viewed with some caution.” *Johnson*, 484 F.3d at 434; *see also Mike’s Train House, Inc v. Lionel, L.L.C.*, 472 F.3d 398, 408 (6th Cir. 2006) (“We have been suspicious of methodologies created for the purpose of litigation . . .”).

In addition, although Federal Rule of Evidence 704 permits a witness to opine about an “ultimate issue to be decided by the trier of fact,” FED. R. EVID. 704(a), the Sixth Circuit has explained that there are limits to this permission:

When the rules speak of an expert's testimony embracing the ultimate issue, the reference must be to stating opinions that suggest the answer to the ultimate issue or that give the jury all the information from which it can draw inferences as to the ultimate issue. We would not allow a fingerprint expert in a criminal case to opine that a defendant was guilty (a legal conclusion), even though we would allow him to opine that the defendant's fingerprint was the only one on the murder weapon (a fact). The distinction, although subtle, is nonetheless important.

Berry v. City of Detroit, 25 F.3d 1342, 1353 (6th Cir. 1994). Similarly, “[i]t is not for the witness to instruct the jury as to applicable principles of law, but for the judge.” *Sahid v. City of Detroit*, 889 F.2d 1543, 1548 (6th Cir. 1989) (quoting *United States v. Zipkin*, 729 F.2d 384, 387 (6th Cir. 1984)).

Neither should a district court permit an expert to offer his client's opinion as his own. *See Ask Chems.*, 593 F. App'x at 510 (expert's testimony properly excluded based on his wholesale adoption of plaintiff's estimates, without revealing or evaluating the bases for the estimates). Rank speculation is also impermissible. *Tamraz v. Lincoln Electric Co.*, 620 F.3d 665, 671 (6th Cir. 2010) (“no matter how good experts' credentials may be, they are not permitted to speculate ...; the courtroom is not the place for scientific guesswork, even of the inspired sort.”) (internal quotation marks omitted). And, “cherry-picking” only favorable data for use by an expert can be just as bad as omitting or fabricating data. *United States v. Lang*, 717 Fed. App'x. 523, 534 (6th Cir. 2017) (citing *EEOC v. Freeman*, 778 F.3d 463, 468-71 (4th Cir. 2015) (Agee, J., concurring)).

Nevertheless, “the *Daubert* standard is liberal, and does not require expert opinions to be bulletproof.” *Lang*, 717 Fed. App'x. at 534. Instead, the Supreme Court prefers that litigants rely upon “the capabilities of the jury and of the adversary system generally,” rather than “wholesale exclusion” of fairly supported, relevant testimony by the Court. *In re Welding Fume Product Liab. Litig.*, 2005 WL 1868046, at *5 (quoting *Daubert*, 509 U.S. at 596). If the expert's testimony rests

on “good grounds based on what is known,” then the expert’s theory should be submitted to the jury, rather than excluded “for fear that [the jurors] will not grasp its complexities or satisfactorily weigh its inadequacies.” *Id.* (quoting *Ruiz-Troche v. Pepsi Cola Bottling Co.*, 161 F.3d 75, 85 (1st Cir. 1998) (quoting *Daubert*, 509 U.S. at 590)). The Court’s role is “that of gatekeeper[, not] that of armed guard.” *Id.*

B. Defendants’ Motion to Exclude Rosenthal: Introduction.

Having set out the legal standards, the Court now examines Rosenthal’s expert opinions. Rosenthal conducted an analysis of, and offers opinions on, the impact of Manufacturer Defendants’ marketing on opioid sales in Cuyahoga and Summit Counties. *See* Report at Doc. #: 1913-4. She opines on whether “the combined effect of the Defendant manufacturers’ promotion of prescription opioids since 1995 was a substantial contributing factor to the increase in the use of prescription opioids in the Bellwether communities.” Report at ¶ 8 (Doc. #: 1913-4). She further assessed “whether the increase in the use of opioids would have occurred were it not for, i.e., ‘but for,’ the allegedly unlawful promotion of these products by Defendant manufacturers.” *Id.* Rosenthal concludes she can “reasonably identify the extent to which the sale of prescription opioids (measured by the number of milligrams of morphine equivalents, or MMEs) was caused by any quantum of the Defendants’ promotion efforts that counsel can prove was unlawful.” *Id.* at ¶ 11.

Rosenthal is the C. Boyden Gray Professor of Health Economics and Policy at the Harvard T.H. Chan School of Public Health and is a well-respected expert in the field of health economics. She has published widely using the methods of econometrics. Recognizing her expertise, numerous federal courts have admitted her testimony. *See, e.g., In re Neurontin Marketing & Sales Pracs. Litig.*, 712 F.3d 21 (1st Cir. 2013); *In re Solodyn Antitrust Litig.*, 2018 WL 563144 (D. Mass. Jan. 25, 2018); *U.S. ex rel. Bahnsen v. Boston Sci. Neuromodulation Corp.*, 2017 WL

6402633 (D.N.J. Dec. 15, 2007); *In re Actiq Sales & Marketing Pracs. Litig.*, 2014 WL 3572932 (E.D. Pa. July 21, 2014); *In re Pharm. Indus. Average Wholesale Price Litig.*, 582 F.3d 156 (1st Cir. 2009); *In re Zyprexa Prods. Liab. Litig.*, 493 F. Supp. 2d 571 (E.D.N.Y. 2007). Defendants do not challenge her qualifications. But defendants do ask the Court to exclude Rosenthal's report and testimony for a number of other reasons, including lack of fit, flawed assumptions, and numerous other alleged methodological errors. The Court concludes defendants' attacks are not well-taken.

C. Discussion.

1. Fit.

Defendants argue Rosenthal's opinions will not be helpful to the trier of fact because they do not fit what they view to be Plaintiffs' theory of the case. According to Defendants, Plaintiffs' case centers on the manufacturers' "massive marketing campaign premised on false and incomplete information," in which they "relentlessly and methodically, but untruthfully, asserted that the risk of addiction was low when opioids were used to treat chronic pain." Motion at 4 (Doc. #: 1913). Defendants stress the importance of key opinion leaders ("KOLs"), front groups, and continuing medical education ("CME") programs to Plaintiffs' theory and note that Plaintiffs aim to recover costs "related directly to Defendants' *illegal* actions." *Id.* (emphasis in original).

To support their claim about fit, Defendants make four separate arguments. First, Defendants point out that Rosenthal's analysis assumes *all* of their sales calls on doctors – known as detailing – were unlawful. Consequently, she does not specifically measure the consequences of Defendants' *unlawful* actions versus any lawful actions. According to Defendants, by failing to distinguish between lawful and unlawful detailing, Rosenthal's analysis is inconsistent with Plaintiffs' theory of liability and thus is not helpful to the trier of fact. *Id.* at 4-6; Reply at 2 (Doc. #: 2461).

Second, Defendants find fault with Rosenthal's treatment of all detailing contacts as uniform, rather than breaking them out by any number of categories they volunteer. Some of these suggested subgroups of detailing contacts relate to practice area or prescribing behavior (e.g., surgeons and oncologists, or those whose prescribing rates decreased after detailing visits), but Defendants also argue Rosenthal should have distinguished between rivalrous and non-rivalrous marketing efforts. (Rivalrous detailing refers to visits intended to "convert doctors who were prescribing one kind of opioid to another." Motion at 7 (Doc. #: 2313); Reply at 4 (Doc. #: 2461)). Defendants assert Rosenthal's failure to be more granular regarding these different types and objectives of detailing renders her opinions useless.

Defendants next criticize Rosenthal for failing to measure the separate effects of Defendants' other marketing techniques, such as their alleged deployment of key opinion leaders ("KOLs"), front groups, and continuing medical education ("CME") programs – marketing efforts which Plaintiffs also highlight in their complaint. Motion at 7-8 (Doc. #: 2313). Finally, Defendants fault Rosenthal for employing an aggregate approach to Defendants' marketing, rather than structuring her analysis to address the actions of individual manufacturers and the harms caused by each. *Id.* at 8-10. Again, Defendants insist Rosenthal's examination of their marketing efforts is too coarse to provide any help to a jury.

The Court does not find these arguments persuasive. The Sixth Circuit has explained that "there must be a fit between the inquiry in the case and the testimony, and expert testimony that does not relate to any issue in the case is not relevant and therefore not helpful." *United States v. Bonds*, 12 F.3d 540 at 555 (6th Cir. 1993). Defendants' arguments fail to show that Rosenthal's testimony "does not relate to any issue in the case." *Id.* To the contrary, the Court concludes Rosenthal's testimony will be helpful to a jury.

Plaintiffs, who of course are crafters of their own theory of the case, respond that Defendants mischaracterize it. Plaintiffs counter that their theory of liability “is that Defendants employed a marketing strategy designed to increase the demand and market for opioids.” Plaintiff’s Opposition (hereinafter “Opp.”) at 4 (Doc. #: 2115). Plaintiffs assert they will prove that “*all* of Defendants’ promotional activity was fraudulent because Defendants so thoroughly misrepresented the risks and benefits of opioids, and consistently omitted the true facts about tolerance, addiction, and withdrawal, that no doctor could make an appropriate prescribing decision.” Opp. at 5 (Doc. # 2115) (emphasis added). Rosenthal’s assumption that all of Defendants’ detailing was unlawful is consistent with Plaintiffs’ theory of liability. Defendants are free to challenge that assumption, of course, but the assumption does not cause a problem of fit, nor does it render her overall methodology unreliable.

Rosenthal’s choice to treat all detailing data uniformly likewise does not present a problem of fit. This aggregate approach to detailing data, like Plaintiffs’ other decisions to use aggregate data, is consistent with Plaintiffs’ theory of liability. *See* Order Regarding Discovery Ruling No. 5 (Doc. #: 1047) (affirming discovery ruling regarding use of aggregate proof). Of course, Defendants are free to challenge Rosenthal’s assumption – and Defendants may well convince a jury it is *not* true that all of defendants’ detailing was fraudulent and tainted by misrepresentations – but her central assumption does not render her opinion inadmissible. *See Avery Dennison Corp. v. Four Pillars Enter. Co.*, 45 F. App’x 479, 487 (6th Cir. 2002) (“Although a *Daubert* challenge may certainly include arguments that the expert theory is invalid because it has no basis in fact, we do not conclude that the district court abused its discretion by determining that [the expert’s] theories were sufficiently factually supported. The ‘facts’ challenged by FP here are not scientific

facts to be evaluated under *Daubert*, but are rather the central questions of liability in the case, which were properly presented to the jury.”).

Rosenthal also explains why she chose to center her analysis on detailing, as opposed to various other forms of unbranded marketing, such as front groups or KOLs. Most important among these considerations was her conclusion that detailing was “by far the dominant form of promotion.” Report at ¶ 56 (Doc. #: 1913-4). She also noted the relative incompleteness of relevant data regarding other forms of marketing for some manufacturers and concluded reasonably that “from an econometric standpoint, detailing is a good proxy for total promotional effort.” *Id.* Defendants may certainly challenge this assumption at trial as well, but the assumption does not render her opinions inadmissible.

Rosenthal’s explanation of the absence of unbranded marketing efforts from her analysis is sufficient, and in any event, *Daubert* does not require that any single expert provide a comprehensive analysis of wide-ranging factual issues. Plaintiffs may, if they find it necessary, rely on other experts to explain the importance of front groups, KOLs, and CMEs.

Defendants’ fourth fit argument, challenging Rosenthal’s decision to aggregate all manufacturers’ marketing activities, is similarly unavailing. This choice is consistent with Plaintiffs’ theory of liability, the collective nature of RICO and OCPA actions, and principles of joint and several liability; accordingly, it presents no problem of fit. *See, e.g., Capogreco v. Pro Ins. Agency, Inc.*, 2007 WL 4510266, at *9 (N.S. Ohio Dec. 18, 2007) (applying joint and several liability in civil RICO action).

In sum, the Court does not find persuasive any of Defendants’ arguments that Rosenthal’s opinions fit the case poorly and would not be helpful to a jury.

2. Rosenthal's Assumptions

a. Rosenthal's Model Assumes that All Manufacturers' Promotion Was Unlawful.

Defendants' next basis for exclusion is that "Rosenthal's core assumption that all Defendant manufacturer promotion was unlawful is provably wrong." Motion at 10 (Doc. #: 1913). They cite four of Plaintiffs' experts who, in published writings or deposition testimony in this MDL, have asserted that drug promotion can be appropriate and salutary. *Id.* But the examples Defendants cite are not inconsistent with Rosenthal's and Plaintiffs' assumption. For example, in deposition testimony, Plaintiffs' marketing expert Matthew Perri III states that doctors must "keep current on – with their drug knowledge and their disease knowledge, and one of the ways they do that is the information provided by marketing." *Id.*; Perri Dep. at 111:14-23 (Doc. 1927-6). Similarly, Defendants characterize Plaintiffs' expert Dr. David Kessler as stating that "certain detailing activities are appropriate," Motion at 10 (Doc. #: 1913), and quote Rosenthal's own deposition testimony, where she asserts "there is such a thing as lawful marketing, and it does generate sales." *Id.*; Rosenthal Dep. at 143:25-154:2 (Doc. 1913-5). But these innocuous statements that detailing *can* be lawful do not undercut Rosenthal's "core assumption," which is that all of the Defendants' detailing of opioids in *this* case was unlawful. There is nothing inconsistent between the assertions that: (1) detailing can sometimes be helpful to doctors, but (2) all of the defendant's actual detailing in this case "so thoroughly misrepresented the risks and benefits of opioids" that it amounted to consistent misrepresentation to doctors, and was unlawful.

Whether Plaintiffs are able to prove their claims about the extent of Defendants' alleged unlawful promotion remains to be seen. But it was not unreasonable for Rosenthal to premise her analysis on assumptions that were consonant with Plaintiffs' theory of liability. *See Avery Dennison Corp*, 45 Fed. App'x. at 487 ("The 'facts' challenged here are not scientific facts to be

evaluated under *Daubert*, but are rather the central questions of liability in the case, which were properly presented to the jury.”).

b. Manipulation or Overfit of Model.

Defendants next contend that “Rosenthal’s direct regression model purports to show that over 99 percent of opioid prescriptions were dispensed solely on the basis of manufacturer detailing.” Motion at 11 (Doc. #: 1913). They assert this finding “shows that Rosenthal contorted and ‘overfit’ her model to ensure that the aggregate detailing data mapped perfectly onto the aggregate level of MME sales, ignoring economic literature and common sense.” *Id.* But Defendants here purposely mischaracterize both Rosenthal’s report and her deposition testimony, which clearly show Rosenthal found that detailing accounts for 99 percent of the *variation* in MME sales, not the total quantity. (Rosenthal Dep. at 388:22-25 (Doc. 1913-15) (Q: “So your model explains more than 99% of the variation in MMEs with promotion? A: That’s correct, and price.”); Report at ¶ 72 (Doc. 1913-4).

On the basis of their distorted representation of Rosenthal’s findings, Defendants argue incorrectly that she “manipulated her direct model to ensure her conclusions.” Motion at 12 (Doc. #: 1913); Reply at 8-11 (Doc. #: 2461). Along the same lines, Defendants characterize her *finding* of a “negative depreciation rate for promotion” as an *estimation* of a negative depreciation rate, and argue that such an “estimate” is an impermissible assumption that “deserves no credence and cannot be offered to a jury as a reliable means to prove causation.” Motion at 13 (Doc. #: 1913). A negative depreciation rate simply means that the value of something, in this case all of manufacturer Defendants’ detailing visits, increases over time. For example, an automobile tire has a positive depreciation rate; its value decreases with wear. By contrast, a negative depreciation rate for Manufacturers’ detailing activity means the marketing impact of these promotional activities increases to some degree over time. Plaintiffs respond that the negative depreciation rate

is a finding, and not an assumption, of Rosenthal's analysis. Opp. at 15 (Doc. #: 2115). Rosenthal, in her deposition, explains that a negative depreciation rate is theoretically consistent with an addictive drug, and her report points to academic literature that suggests that "promotional effects are long-lived." Report at ¶ 22 (Doc. #: 1913-4). Even if the negative depreciation rate functions as an assumption, it is not an assumption that is so clearly implausible that it undermines the reliability of her analysis. *Ruiz-Troche v. Pepsi Cola of P.R. Bottling Co.*, 161 F.3d 77, 85 (1st Cir. 1998) (quoting *Daubert*, 509 U.S. at 590) ("As long as an expert's scientific testimony rests upon 'good grounds, based on what is known,' it should be tested by the adversary process—competing expert testimony and active cross-examination—rather than excluded from jurors' scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies."). Defendants have not persuaded the Court that Rosenthal's finding of a negative depreciation rate mandates the exclusion of her analysis. The validity of the negative depreciation rate goes to the weight the trier of fact will accord this analysis, not its admissibility.

Defendants make two other arguments premised on their view that Rosenthal has manipulated her data. First, they claim her model is so malleable it can be used to demonstrate a causal relationship between detailing and sunspots, gold prices, or attendance at Cleveland Indians baseball games. Motion at 12 (Doc. #: 1913). Plaintiffs counter that Defendants themselves are manipulating the model by cherry-picking data to generate absurd results, and if Defendants had attempted to show the same results using a more complete data set, the whimsical causal relationship they generate disappears. Opp. at 16-17 (Doc. #: 2115). The Court agrees with Plaintiffs and rejects Defendants' contention that Rosenthal's model is so malleable that it is unreliable or unreliably applied.

Second, Defendants argue that, “because she fits her model to the data, her model does not accurately predict real-world events that may have influenced opioid prescribing, like changing medical standards and drug reclassification.” Motion at 13 (Doc. #: 1913). As discussed further below, Rosenthal made choices to control for a number of possible alternative causes; that her list does not include every possible alternative, such as drug reclassification, is bound to displease Defendants. More to the point, Rosenthal’s choice not to control for every possible factor does not eviscerate the logic of her model. These arguments do not persuade the court that Rosenthal’s opinions are inadmissible. *Daubert*, 509 U.S. at 596 (1993) (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”). Defendants may challenge Rosenthal on these aspects of her analysis on cross-examination.

3. Other Challenges to Rosenthal’s Methodology

Defendants make a number of other attacks on Rosenthal’s methodology: (1) challenging her approach to testing whether the previous undertreatment of pain could explain the increase in opioid sales, (2) questioning whether she properly accounted for technical statistical concepts such as nonstationarity and endogeneity, and (3) faulting her choice of control variables. *Id.* at 13-18 (Doc. #: 1913). For the reasons discussed below, these attacks all go to weight and not admissibility.

a. The Under-Treatment of Pain Hypothesis

Aware of the possibility that a rise in the *appropriate* treatment of pain over time could explain the increase in opioid sales, Rosenthal sought to test this hypothesis using epidemiologic data and what she described as a “simple simulation approach to approximate the portion of the increased prescribing caused by the allegedly unlawful promotion [that] could possibly be

associated [instead] with using opioids to address ostensibly ‘under-treated’ pain.” Report at ¶ 91 (Doc. 1913-4).

Defendants assert this simulation, which Rosenthal refers to at times as a “thought experiment,” is inadmissible because it is mathematically simplistic, it relies on the analyses and judgments of other experts, and because it is not a peer-reviewed methodology with support in the relevant academic community (indeed, Defendants assert she “created her own” methodology). Motion at 15 (Doc. #: 1913). None of these criticisms is well-taken. Rosenthal explained in deposition that economists commonly use this allegedly “simplistic” methodology and informed Defendants’ of three published articles that employ it. Rosenthal Dep. at 622:19-21; 623:1-624:21 (Doc. 1913-5). Moreover, Rosenthal’s reliance on other experts for inputs beyond her own expertise poses no problems for admissibility under Daubert. See Daubert, 509 U.S. 579, 592 (1993) (“an expert is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge or observation.”); E.I. Du Pont De Nemours & Co. C-8 Personal Injury Litig., 337 F. Supp. 3d 728, 743 (S.D. Ohio 2015) (“An expert is able to base an opinion on another expert witness for a point of expert knowledge not personally possessed.”); Ohio Env’tl. Dev. Ltd. P’ship v. Envirotech Sys. Corp., 478 F. Supp. 2d 963, 974-75 (N.D. Ohio 2007) (“If an expert’s consultation of another expert’s opinion is a resource ‘reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted.”).

b. Nonstationarity, Endogeneity, and Missing Variables

Defendants also argue that Rosenthal failed to adequately consider econometric concepts such as nonstationarity and endogeneity in her analysis. Motion at 16-18 (Doc. #: 1913); Reply at 12-13 (Doc. #: 2461). Defendants cite deposition testimony where Rosenthal states she could not

recall whether MME sales were stationary; but Defendants neglect to mention she testified that she performed “Dickey-Fuller” tests for stationarity early in her analysis. Rosenthal Dep. at 137:13-140:4 (Doc. 1913-5). Defendants will have the opportunity to cross-examine Rosenthal about nonstationarity, and they have not persuaded the court her methodology is so faulty it presents a basis to exclude her testimony. *Ruiz-Troche v. Pepsi Cola of P.R. Bottling Co.*, 161 F.3d 77, 85 (1st Cir. 1998).

Defendants next assert that “Rosenthal’s model also suffers from endogeneity bias, which likewise could cause her to overstate the effect of promotion on prescribing.” Motion at 17 (Doc. #: 1913). Rosenthal readily conceded she did not test for endogeneity and explained in detail why she did not consider it a weakness in her analysis. She explained that endogeneity would have been a problem for her results if she had focused her analysis at the level of individual physicians, but because she employed an aggregate approach embracing all products, manufacturers, and prescribers, endogeneity was not an issue. Rosenthal Dep. at 330:6 - 336:11 (Doc. 1913-5). Again, the significance of endogeneity relates to the weight, not the admissibility, of Rosenthal’s report and testimony. *Ruiz-Troche*, 161 F.3d at 85.

The same can be said for Defendants’ final argument against Rosenthal, that she failed to account for certain “key variables that might explain the increase in opioid prescriptions over the relevant time period.” Motion at 18 (Doc. #: 1913). Rosenthal’s report accounts for numerous potential other causes of the rise in opioid distribution, but inevitably left others out. These decisions, like many others she made, may be imperfections in her analysis, but they do not, either individually or in the aggregate, render her report unreliable. As the Sixth Circuit has stated, “the *Daubert* standard is liberal, and does not require expert opinions to be bulletproof.” *United States v. Lang*, 717 Fed. App’x 523, 534 (6th Cir. 2010). Defendants can cross-examine Rosenthal at trial

regarding these alleged other causes for increases in opioid prescriptions and whether her opinions are unsound because she did not address them.

D. Conclusion

For the foregoing reasons, Defendants' Motion to Exclude Meredith Rosenthal's Opinions and Testimony is **DENIED**.

IT IS SO ORDERED.

/s/ Dan Aaron Polster August 20, 2019
DAN AARON POLSTER
UNITED STATES DISTRICT JUDGE